

JAN 13 2004

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.

66153/45004

In Re Application Of:

Chang et al.

JAN 12 2004

| Serial No. | Filing Date | Examiner | Group Art Unit |
|------------|-------------------|------------------|------------------|
| 10/712,359 | November 13, 2003 | Not yet assigned | Not yet assigned |

Title:

Dominant negative variants of methionine aminopeptidase 2 (METAP2) and clinical uses thereof

Address to:

Assistant Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450

37 CFR 1.97(b)

- The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

37 CFR 1.97(c)

- The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

- the statement specified in 37 CFR 1.97(e);

OR

- the fee set forth in 37 CFR 1.17(p).

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Examiner

Not yet assigned

Group Art Unit

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Payment of Fee

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

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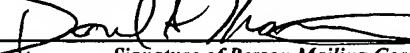


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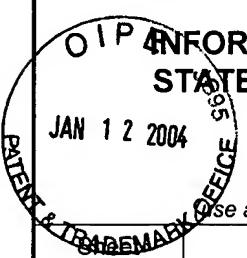
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JAN 12 2004

INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

105

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|------------------------|-------------------|
| Application Number | 10/712,359 |
| Filing Date | November 13, 2003 |
| First Named Inventor | Chang |
| Art Unit | Not yet assigned |
| Examiner Name | Not yet assigned |
| Attorney Docket Number | 66153-45004 |

U.S. PATENT DOCUMENTS

| Examiner Initials | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|-------------------|-----------------------|--|--------------------------------|--|---|
| | | Number-Kind Code ² (if known) | | | |
| | AA | US- 6,261,794 | 07/17/01 | Chang | |
| | AB | US- 5,888,796 | 03/30/99 | Chang | |
| | AC | US- 5,885,820 | 03/23/99 | Chang | |
| | AD | US- 6,110,744 | 08/29/2000 | Fang et al. | |
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FOREIGN PATENT DOCUMENTS

| Examiner Initials | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
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|-------------------|-----------------------|--|----------------|
| | AE | BRADSHAW et al., Elsevier Science Ltd., <i>N-Terminal processing: the methionine aminopeptidase and N²-acetyl transferase families</i> , pages 263-267, 1998. | |
| | AF | GLOVER et al., J. of Biol. Chem., Vol. 272, No. 45, <i>Human N-Myristoyltransferase Amino-terminal Domain Involved in Targeting the Enzyme to the Ribosomal Subcellular Fraction</i> , pages 28680-28689, November 7, 1997. | |
| | AG | GRIFFITH et al., Chemistry & Biology, Vol. 4, No. 6, <i>Methionine aminopeptidase (type 2) is the common target for angiogenesis inhibitors AGM-1470 and ovalicin</i> , pages 461-471, 1997. | |

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|--------------------|--|-----------------|
| Examiner Signature | | Date Considered |
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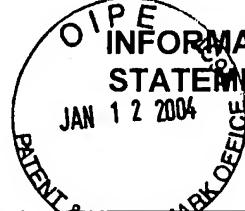
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| Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT JAN 12 2004 (use as many sheets as necessary) | | | | Complete if Known | |
| Sheet | 2 | of | 3 | Application Number | 10/712,359 |
| | | | | Filing Date | November 13, 2003 |
| | | | | First Named Inventor | Chang |
| | | | | Art Unit | Not yet assigned |
| | | | | Examiner Name | Not yet assigned |
| | | | | Attorney Docket Number | 66153-45004 |

| NON PATENT LITERATURE DOCUMENTS | | | | | |
|---------------------------------|-----------------------|--|--|--|--|
| Examiner Initials | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published | | | |
| | | T ² | | | |
| | AH | GRIFFITH et al., Proc. Natl. Acad. Sci. USA, Vol. 95, <i>Molecular recognition of angiogenesis inhibitors fumagillin and ovalicin by methionine aminopeptidase 2</i> , pages 15183-15188, December 1998. | | | |
| | AI | KLINKENBERG et al., Archives of Biochem. and Biophys., Vol. 347, No. 2, <i>A Dominant Negative Mutation in <i>Saccharomyces cerevisiae</i> Methionine Aminopeptidase-1 Affects Catalysis and Interferes with the Function of Methionine Aminopeptidase-2</i> , pages 193-200, November 15, 1997. | | | |
| | AJ | LI et al., Biochem. and Biophys. Research Comm., Vol. 227, Article 1482, <i>Evidence That the Human Homologue of a Rat Initiation Factor-2 Associated Protein (p⁶⁷) is a Methionine Aminopeptidase</i> , pages 152-159, 1996. | | | |
| | AK | LOWTHER et al., Biochimica et Biophysica Acta, Vol. 1477, <i>Structure and function of the methionine aminopeptidases</i> , pages 157-167, 2000. | | | |
| | AL | TURK et al., Chemistry & Biology, Vol. 6, No. 11, <i>Selective inhibition of amino-terminal methionine processing by TNP-470 and ovalicin in endothelial cell</i> , pages 1-11, 1999. | | | |
| | AM | GURA, TRISHA, Science Magazine, Vol. 276, <i>Systems for Identifying New Drugs are Often Faulty</i> , pages 1041-1042, November 7, 1997. | | | |
| | AN | FRESHNEY, R. IAN, <i>Culture of Animal Cells: A Manual of Basic Technique</i> , pages 3-4, New York, NY: Alan R. Liss, Inc., 1983. | | | |
| | AO | HARTWELL, et al. Science Magazine, vol. 278, <i>Integrating Genetic Approaches into the Discovery of Anticancer Drugs</i> , pages 1064-1068, November 7, 1997. | | | |
| | AP | KRUSE, et al., <i>Tissue Culture: Methods and Applications</i> , pages 764-766, New York: Academic Press, 1973. | | | |
| | AQ | DREXLER, HANS G., Leukemia and Lymphoma, Vol. 9, <i>Recent Results on the Biology of Hodgkin and Reed-Sternberg Cells</i> , pages 1-24, Harwood Academic Publishers GmbH, 1993. | | | |
| | AR | WRIGHT, GEORGE L., JR., <i>Monoclonal Antibodies and Cancer</i> , pages 181-207, New York, NY: Marcel Dekker, Inc., 1984. | | | |
| | AS | DERMER, GERALD B., Bio/Technology, Vol. 12, <i>Another Anniversary for the War on Cancer</i> , page 320, March 1994. | | | |
| | AT | CURTI, BRENDAN D., Critical Reviews of Oncology/Hematology, Vol. 14, <i>Physical barriers to drug delivery in tumors</i> , pages 29-39, Elsevier Scientific Publishers Ireland Ltd., 1993. | | | |
| | AU | VETRO, et al., <i>A Dominant Negative Mutant of Yeast Methionine Aminopeptidase Type 2 in <i>Saccharomyces cerevisiae</i></i> , unpublished. | | | |
| | AV | BENDER, et al., Mol. Cell Biol, Vol. 11, No. 3, <i>Use of a screen for synthetic lethal and multicopy suppressor mutants to identify two new genes involved in morphogenesis in <i>Saccharomyces cerevisiae</i></i> , pages 1295-1305, March 1991. | | | |

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|-------------------|-----------------------|---|--|--|--|----------------|
| | AW | PETERSON, et al., <i>J. Cell Biol.</i> , Vol. 127, No. 5, <i>Interactions between the bud emergence proteins Bem1p and Bem2p and Rho-type GTPases in yeast</i> , pages 1395-1406, December 1994. | | | | |
| | AX | KIM, et al., <i>Molecular Biology of the Cell</i> , Vol. 10, <i>High-Copy Suppressor Analysis Reveals a Physical Interaction between Sec34p and Sec 35p, a Protein Implicated in Vesicle Docking</i> , pages 3317-3329, The American Society for Cell Biology, October 1999. | | | | |
| | AY | Simons, et al. <i>Genome Research</i> (www.genome.org), <i>Establishment of a Chemical Synthetic Lethality Screen in Cultured Human Cells</i> , pages 266-273, Cold Spring Harbor Laboratory Press, 2001. | | | | |
| | AZ | MORRIS, et al. <i>Journal of Biological Chemistry</i> , <i>A New Potent HIV-1 Reverse Transcriptase Inhibitor: A Synthetic Peptide Derived from the Interface Subunit Domains</i> , pages 24941-24946, The American Society for Biochemistry and Molecular Biology, Inc., 1999. | | | | |
| | BA | DIDIER, ELIZABETH, <i>Antimicrobial Agents and Chemotherapy</i> , Vol. 41, No. 7, <i>Effects of Albendazole, Fumagillin, and TNP-470 on Microsporidial Replication in Vitro</i> , pages 1541-1546, American Society for Microbiology, 1997. | | | | |
| | BB | COYLE, et al. <i>J. Infect Dis.</i> , Vol. 177, No. 2, <i>TNP-470 is an effective antimicrospordial agent</i> , pages 515-518, February 1998. | | | | |
| | BC | NICKLIN, et al., <i>Hypertension</i> , Vol. 38, No. 1, <i>Analysis of cell-specific promoters for viral gene therapy targeted at vascular endothelium</i> , pages 65-70, July 2001. | | | | |
| | BD | HE, et al., <i>Xenotransplantation</i> , Vol. 8, No. 3, <i>The in vitro activity and specificity of human endothelial cell-specific promoters in porcine cells</i> , pages 202-212, August 2001. | | | | |
| | BE | OPAVSKY, et al., <i>J. Biol Chem</i> , <i>Molecular characterization of the mouse Tem1/endosialin gene regulated by cell density in vitro and expressed in normal cells in vivo</i> , August 2001. | | | | |
| | BF | TURK, et al., <i>Bioorganic and Medicinal Chemistry</i> , Vol. 6, <i>Synthetic Analogues of TNP-470 and Ovalicin Reveal a Common Molecular Basis for Inhibition of Angiogenesis and Immunosuppression</i> , pages 1163-1169, Elsevier Science Ltd., 1998. | | | | |
| | BG | ZHANG, et al., <i>PNAS</i> , Vol. 97, No. 12, <i>Cell cycle inhibition by the anti-angiogenic agent TNP-470 is mediated by p53 and p21 (WAF1/CIP1)</i> , pages 6427-6432, June 6, 2000. | | | | |
| | BH | CARDENAS, et al., <i>Clinical Microbiology Reviews</i> , Vol. 12, No. 4, <i>Antifungal Activities of Antineoplastic Agents: Saccharomyces cerevisiae as a Model System to Study Drug Action</i> , pages 583-611, American Society for Microbiology, 1999. | | | | |
| | BI | DENTON, et al., <i>American Society of Transplantation 18th Annual Scientific Meeting</i> , <i>TNP-470, An Anti-angiogenesis Agent, Is a Potent Inhibitor of Human CD4⁺T Cell Proliferation</i> , AST, 1997-2000. | | | | |
| | BJ | LI, et al., <i>Proc. Natl. Acad. Sci.</i> , Vol. 92, <i>Amino-terminal protein processing in Saccharomyces cerevisiae is an essential function that requires two distinct methionine aminopeptidases</i> , pages 12357-12361, December 1995. | | | | |

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| Examiner Signature | Date Considered |
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